

MISCELLANEA ENTOMOLOGICA, No. IV.

“THE HELÆIDES.”

BY WILLIAM MACLEAY, F.L.S., &c.

In this Paper I undertake the revision of a group of the large Family of Tenebrionidæ, remarkable for its eccentricity of form. Under the name of “Helæides,” Lacordaire in his “Genera Coléopt. Vol. V.” includes some genera of Heteromerous beetles, all more or less resembling in general characters the typical genus *Helæus*, and all exclusively of Australian parentage.

Until the year 1842, but little was known of these insects, a very few species only having been described by Olivier, Kirby, and Boisduval, but in that year a monograph of the group was published by the Marquis de Brême, entitled “Essai Monogr. et Iconogr. de la Tribu des Cossyphides.” In this monograph the number of species noticed or described, amounted to 37, spread over four genera. In the year 1846 (1) the Rev. F. W. Hope published descriptions of eight additional species. Since then the chief additions to the group have been made by Mr. Pascoe, and the number of his contributions may be inferred from the fact that the number of species recorded in Masters’ Catalogue of Australian Coleoptera, published last year in the Proceedings of the Linnean Society of New South Wales, had risen to 97.

The characters of the Helæides, in addition to those common to all the Tenebrionidæ, are given below.

(1) Trans. Ent. Soc. Lond. Vol. V. p. 52.

Sub-family HELÆIDES.

Labial palpi strongly separated at the base. Inner lobe of the maxillæ armed or not with a corneous hook. The last article of the maxillary palpi strongly securiform. Mandibles bifid at the apex. Head short, deeply sunk in the thorax—the clypeus square, rarely narrowed in front, and separated from the forehead by an arched groove or suture. Antennæ slender, the third joint very elongate, the rest obconic, the last three, four or five joints moniliform, perfoliate, forming an indistinct mass. Prothorax emarginate in front, and foliaceous on the sides; elytra for the most part similarly margined. Scutellum large, curvilinearly triangular. Anterior haunches cylindrical and transversal, anterior tibiæ almost always terminated by a single spur, the intermediate and posterior by two short and in general strong spurs; the tarsi ciliated or pubescent beneath. Intercoxal projection variable. Metasternum of varying length, the episterna narrow, parallel, the epimera distinct.—The mesothoracic epimera large, closing on a large extension of the intermediate cotyloid cavities.

Lacordaire, from whom the foregoing description is translated, divides the Helæides into those with foliaceous margins to the thorax and elytra (*Helæides vrais*), and those without these dilated margins (*Nyctozöilides*). The first of these sub-divisions only forms the subject of my present paper. His other sub-division (the *Nyctozöilides*) consists of several genera, mostly Australian, but departing so largely from the true Helæus form and habit, that I cannot regard them as properly entering into the same group.

The Helæides proper then or true Helæides, are insects of large size, of flat, rotund form, with broad foliate margins to the elytra and thorax; the genera into which they are divided however, showing considerable departures from all these characters, which reach their extreme development in the typical genus *Helæus*. They naturally form two easily recognizable sections. 1st., Those with wings, and consequently with an elongate metasternum, containing the genera *Encara* and *Pterohelæus*. 2nd., Those without wings, and with a short metasternum, the genera *Helæus*, *Sympetes*,

and *Saragus*. The distinctive characters of these genera and their peculiarities of habit will be found under the descriptions attached to each, as far as they are known, but that unfortunately is very little. The larvæ seem to be quite unknown, though no doubt they are chiefly, if not altogether, feeders on decaying wood, but the perfect insects are found some on the ground under logs and stones, others under the bark of living trees, and, as a rule, it may be said, that those found on or near the ground are of the apterous genera, while the winged genera are inhabitants of trees.

I give descriptions of all the species which have not been previously printed in the Proceedings of this Society.

Genus ENCARA, Gemminger.

Col. Heft. VI. 1870. Syn. *Encephalus*, Brême. Mon. Cossyph. 1, p. 23.

Head entirely sunk in the emargination of the thorax, small, square. Eyes very large, almost contiguous above, widely separated beneath. Antennæ shorter than the thorax, the three last joints depressed, forming a small indistinct mass. Thorax strongly transversal, parabolically arched on the sides, rather narrowly and profoundly emarginate in front, imperfectly contiguous to the elytra and cut almost squarely at the base, with a broad but slightly projecting median lobe; the foliaceous margin very broad and flat. The elytra broadly and regularly ovate, rounded behind and convex on the disk with the foliate margin broad and flat. Legs long and slender; tibiæ smooth, their spurs almost invisible. Metasternum elongate. Mesosternum horizontal, forked. Prosternal projection compressed, obtusely carinated, penetrating into the emargination of the mesosternum. Body orbicularly-ovate, winged.

The insects falling into this genus were placed by De Brême in the genus *Encephalus*, under the impression (evidently a mistake), that Kirby had applied that name to the species now named *Encara Westwoodii*, Boisd. Gemminger substituted the present name as *Encephalus* is the name given by Westwood to a genus of the Staphylinidæ.

1. *ENCARA WESTWOODII*, Boisd.

Syn. *Cilibe Westwoodii*, Boisd. Voy. Astrol. II. 1835, p. 262; *Encephalus gibbosus*, De Brême, Mon. Cossyph. 1, 1842, p. 23, pl. V. fig. 5.

Reddish brown, smooth, nitid, broadly ovate. Head broad, sub-quadrate, slightly punctate, the angles of the epicranium and the lateral borders of the clypeus a little elevated, forehead depressed between the eyes, which are very close together. Thorax transverse, convex, a little sinuated behind, smooth and somewhat irregularly gibbous on the disk, which is nearly black, margins broad and flat, with the anterior angles a little rounded and not reaching the front of the head, the posterior angles salient and acute. Elytra of oval form and a little elongate at the apex, strongly and bluntly raised, forming a boss towards the apex, and two other small oblique bosses towards the shoulders; the margins broad and of a redder brown, feebly folded above on the border. On each elytron are two raised, nitid, longitudinal ribs, disappearing and approaching posteriorly; and interrupted by slight gibbosities; the interstices have numerous series of impressed punctures rather thickly placed; the suture is elevated into a carina. The body beneath and legs nitid brown.

Long. 11 lines, lat. $8\frac{1}{2}$ lines.

I cannot give the exact habitat of this species. Boisduval the original describer of it, merely says "New Holland," and De Brême adds to that only "Collection of M. Hope." I have never seen the insect. I am pretty confident that it is not an inhabitant of New South Wales or Queensland.

2. *ENCARA SUBMACULATUM*, De Brême.

Encephalus submaculatus, De Brême, Mon. Cossyph. 1, p. 25. pl. VII, fig. 4.

Of a nitid testaceous brown. Head as in *E. Westwoodi*, the labrum less advanced. Thorax transverse, slightly convex, nitid,

finely punctate, rounded on the sides, scarcely sinuate at the base; the margins broad, flat, and of a lighter reddish yellow, the anterior angles as in *E. Westwoodi*, the posterior less prominent. Elytra rounded laterally, rather pointed at the apex, an oblique boss on each side near the shoulders; each elytron has a small elevation or gibbosity about the middle of the length on the groove separating the disk and margin, and four black spots, two near the base, another large one about the middle near the suture, and a fourth behind and near the margin, the suture elevated. The disk of the elytra is strongly punctate, the margins are broad, flat, narrowing to the apex, impunctate, a little folded above on the border and of the same colour as the margin of the thorax. The undersurface of the body, the legs and the antennæ of a nitid brown.

Long. $6\frac{1}{2}$ lines, lat. 5 lines.

Hab.—New South Wales.

In the Atlas to Lacordaire's Gen. Col. t. 55, fig. 3, a figure of what is called *Encephalus submaculatus* is given; it appears to me, however, to be undoubtedly intended to represent *Encara Lacordairei*, a species described further on. The mistake is readily accounted for. *Encara submaculatum* has long passed in most collections in Australia and elsewhere as *Encara Westwoodii*, and the name *Westwoodii* being thus appropriated, the only other species known in N. S. Wales was generally accepted as *E. submaculatum*. This insect is by no means common, though it has a wide range, being found over most parts of New South Wales; it is generally found on trees, or posts on warm sunny days. When first taken it is, as in the rest of the genus, covered with a whitish secretion, filamentous or powdery, but apparently never to the degree seen in a species from Queensland, *E. floccosum*, Pascoe, mentioned hereafter.

3. ENCARA BREMEI, Hope.

Helæus Bremei, Hope, Trans. Ent. Soc. London, 1846, Vol. V, p. 54. pl. VI. fig. 5.

Orbicular, testaceous brown, the antennæ yellow. Thorax convex in the middle and dyed with a blacker colour. Elytra testaceous, subluteous, smooth, under a lens very densely punctulate. Body beneath of the same colour, legs pitchy red.

Long. $6\frac{1}{4}$ lines, lat. $4\frac{3}{4}$ lines.

Hab.—Swan River, W. Australia.

This is all the description given by the Rev. F. W. Hope of this insect, and I have never seen it myself, but I have little doubt that it has been rightly placed in this genus, even though its author seems to regard it as having affinity to the genus *Cilibe*.

4. ENCARA FLOCCOSUM, Pascoe.

Saragus floccosus, Pascoe, Ann. Nat. Hist. 4th ser. Vol. V. p. 100.

“Broadly ovate, moderately convex, fulvous-testaceous, minutely punctulate; head small, eyes nearly contiguous; antennæ ferruginous; prothorax short, very transverse, brownish-testaceous, the apex narrowly and deeply emarginate; elytra not carinate, the suture raised, the expanded margins rather narrow; body beneath and legs dark brown, shining; margins of the elytra beneath broad, glossy-testaceous, minutely punctulate” (Pascoe).

Long. 6 lines, lat. 5 lines.

Hab.—Wide Bay, Queensland.

This insect is winged and cannot therefore be a *Saragus*, and it has all the characteristics of the genus *Encara*, not the least noticeable being the flocculent growth or secretion which entirely covers it, a peculiarity which exists in a lesser degree throughout all the species of the genus *Encara*.

Mr. Pascoe states, on the authority of Mr. Currey, that the flocculent clothing of this insect is a fungus belonging to the genus *Isaria* of Persoon; and Mr. Masters observed that the trunks of the trees on which he always found them were covered with a vegetable growth of a similar appearance.

5. *ENCARA LACORDAIREI*, n. sp.

Testaceous-brown, nitid, broadly ovate, the margins of the thorax and elytra of a paler hue. Head like that of *E. submaculatum* but not sunk so deeply in the thorax; thorax dark brown on the disk, slightly uneven on the surface, and not or scarcely sinuate on the base. The scutellum and base of thorax carinate. Elytra flat, coarsely and densely punctate, rounded behind, the surface rather uneven, suture slightly elevated, three costæ more or less of a dark brown colour on each elytron, the one next the suture most distinct and very crooked, the next scarcely traceable except towards the apex; the third very indistinct, and joined to the margins behind the middle by a wavy brown fascia; the humeral callus is also brown. The undersurface and legs are of a nitid brown, minutely punctate and pubescent.

Long. $5\frac{1}{2}$ lines, lat. $4\frac{1}{2}$ lines.

Hab.—Coast districts New South Wales.

This is a much rarer species than *E. submaculatum*. Mr. Masters has never observed it except in the Illawarra district, where it is found like the last species on the sunny side of trees.

Genus *PTEROHELÆUS*, De Brême.

Head immersed in the thorax up to the insertion of the antennæ, slightly narrowed and broadly truncate or sinuate in front. Eyes more or less prolonged in front but not contiguous.

Antennæ as long or a little longer than the thorax, their four or five last joints nearly orbicular and forming an inconspicuous mass. Thorax very strongly transversal, parabolically rounded on the sides, broadly and strongly emarginate in front, contiguous to the elytra, and slightly bisinuate at the base, its foliaceous part moderately broad and flat. Elytra large, moderately convex, sometimes oblong, sometimes broadly oval, and in the first of these cases the foliaceous margin is narrow and raised; in the second it is large, as in the thorax. Legs long; tibiæ smooth, aciculate; one spur on the anterior and two very small ones on the four

posterior tibiæ. Metasternum long. Mesosternum horizontal and narrowed behind, declivous and semicircularly concave in front. The prosternal prominence flat, two-grooved, lanciform and declivous behind. Body oval or oblong, winged.

This genus is numerous in species, and seems to be pretty evenly distributed throughout Australia. They are flat insects, of pitchy or black colour, and are, I believe, invariably found under the loose bark of living Gum trees.

The species are not easily identified, and the difficulty is much increased by the doubt which exists as to the identity of some of the old typical insects described by Boisduval and De Brême. I find that in the Australian collections to which I have had access, the wrong names have been in many cases affixed to the wrong insects. The reason, no doubt, is that there are few entomologists here who have seen the Marquis De Brême's Monograph, and fewer still who can get access to Boisduval's "Faune de l'Océanie." I cannot say, however, that I regard the inaccessibility of Boisduval's work as a misfortune, for a worse describer of Coleoptera I never met with. Under the genus *Cilibe* he gives descriptions of nine species of this group, none of which are recognizable from his descriptions.

I propose to divide the insects of this genus into two sections, founded on marked differences in form. 1st., Those of broadly ovate form, and broad expanded margins in both thorax and elytra. 2nd., Those of more elongate form, and with the margins of the elytra less broad, or narrow.

The second of these sections is much the most numerous in species, and I propose to simplify the identification of them by further sub-divisions founded on the sculpture of the elytra—

1. Elytra seriate-punctate, the interstices costate.
2. Elytra seriate-punctate, the interstices granulose.
3. Elytra seriate-punctate, the interstices plain or slightly convex.
4. Elytra irregularly punctate.

SECTION I.

Species of broadly ovate form, and largely expanded margins to both thorax and elytra.

6. PTEROHELAEUS WALKERI, Brême.

Mon. des Cossyph. Part 1. p. 27, pl. II. fig. 4 ; Lac. Gen. Atl. t. 54, f. 3.

Nitid black, oval, slightly convex. Head faintly rugose, sub-transversal, the lateral angles of the epicranium raised and exerted, the clypeus slightly convex, and rounded on the sides, front depressed, antennæ about the length of the prothorax, that rounded, strongly transversal, smooth, somewhat sinuated posteriorly, with the margin broad and flat, its anterior angles rounded and reaching to half the length of the head. Elytra oval, slightly dilated posteriorly, very nitid, the humeral region raised into a knot, margins smooth, flat, as large as those of the thorax, but narrowing behind. The disk of the elytra has nine raised longitudinal ribs or lines, and in the interstices between these, two rows of small impressed punctures, both the punctures and ribs becoming almost obliterated towards the apex. Thighs dilated, the legs and under surface of the body of a nitid blackish-brown. Abdomen flattened, faintly longitudinally striated.

Long. 25, lat. 16 millim.

The above is a translation of De Brême's description of the species. There are other species so resembling it in form and sculpture, as to make a more detailed description very necessary, but I think it better to point out the distinctive features in the different species as I arrive at them. I may mention one peculiarity of all De Brême's descriptions, he invariably applies the term "disque" to the margins of the thorax and elytra ; this I have of course always corrected in my translations.

Found under the loose bark of gum trees in all parts of New South Wales.

7. *PTEROHELÆUS CORNUTUS*, n. sp.

In form, size and sculpture like *P. Walkeri*, but differs in having the lateral angles of the epicranium more elevated and distinctly terminating in a tooth. The sculpture of the elytra also differs in having the double row of punctures in the interstices placed close on each side of the costæ, giving them a crenulated appearance, and with scarcely a trace of the intermediate costæ, which are just traceable in *P. Walkeri*. The thighs of this species are evidently more dilated than in *P. Walkeri*.

Long. 10 lines, lat. 8 lines.

Hab.—Wide Bay, Rockhampton.

8. *PTEROHELÆUS BREMEI*, Macleay.

Trans. Ent. Soc. N.S. Wales, Vol. II., p. 281.

Broadly ovate, black, sub-opaque. Head large, sub-quadrate, truncate in front and rounded at the angles, with a broad shallow canaliculation between the eyes. Thorax transverse and largely emarginate in front, with large flat margins, a little raised and thickened on the border towards the anterior angles, and with the posterior angles sub-acutely pointed backwards. Scutellum transversely and curvilinearly triangular and transversely impressed in the middle. Elytra not longer than the breadth, as broad as the thorax at the base, and rounded at the apex, with a broad smooth margin—broadest at the humeral angle, and becoming narrower to the apex—raised on the border, the disk with eight strong costæ, the second from the suture the largest, and the later ones resembling continuous rows of nodules, the intervals rather obliterated punctate in double rows. Abdomen sub-nitid, and marked with longitudinal striolæ. Antennæ, palpi, and tarsi piceous.

Long. 10 lines, lat. $6\frac{1}{2}$ lines.

Hab.—Gayndah, Queensland.

9. *PTEROHELÆUS RIVERINÆ*, n. sp.

A species remarkably like *P. Walkeri*, but smaller, the clypeal suture more distinctly marked, the lateral angles of the head round and nearly flat, the eyes more apart, the thorax slightly less transverse, and the elytra more convex, more nitid and more strongly costate.

Long. 10 lines, lat. $6\frac{1}{2}$ lines.

Hab.—Murrumbidgee.

In form and stature like *P. Walkeri*.

10. *PTEROHELÆUS SPINICOLLIS*, n. sp.

Broadly ovate, black, moderately nitid. Head sub-opaque, very minutely punctate, the surface flat, the angles scarcely reflexed. Thorax also sub-opaque, very minutely punctate, transverse, very largely emarginate in front, the anterior angles advanced and spiniform, the margins very broad and smooth. Scutellum transverse, curvilinearly triangular, somewhat depressed at the base. Elytra each with 17 rows of strong punctures, the interstices for the most part slightly elevated, the fourth and eighth distinctly so, the margins broad, flat and smooth, and the sutural apex terminating in a dehiscant spine.

Long. 10 lines, lat. 8 lines.

Hab.—Endeavour River.

11. *PTEROHELÆUS ACUTICOLLIS*, n. sp.

This species differs from *P. spinicollis* in being of less size, in having the anterior angles of the thorax acutely advanced but not spinigerous, and in the elytra not mucronate. The form and sculpture is in every respect the same.

Long. 8 lines, lat. 6 lines.

Hab.—Endeavour River.

12. PTEROHELÆUS PICEUS, Kirby.

Helæus piceus, Kirby, Trans. Ent. Soc. Lond. XII. 1818, p. 468.

Pterohelæus piceus, Brême, Mon. Cossyph. 1842, p. 28, pl. II. fig. 5.

Like *P. Walkeri* but smaller. Colour piceous-brown, nitid. Broadly oval; head scarcely visibly punctate, labrum prominent, sides of the epicranium a little raised; thorax strongly transversal, slightly convex, rounded on each side and smooth, almost straight at the base; the margin broad, slightly curved up at the border; the anterior angles reaching half the length of the head. Elytra slightly convex, oval, a boss or callus on the humeral region, margins smooth, as large as those of the thorax, equally concave and reddish coloured, and narrower towards the apex. On the disk of each elytron are numerous slightly elevated costæ (17) more distinct near the suture, with a distinct line of punctures in each interval, the last line next the margin of much larger punctures. Last joint of the antennæ red. Legs and under surface of body are as in *P. Walkeri*, the hinder border of the abdominal segments red.

Long. $8\frac{1}{2}$ lines, lat. $5\frac{1}{2}$ lines.

Hab.—N. S. Wales, S. Australia, &c.

This species seems to have a wide range. I have specimens of it, or closely resembling it, from all parts of New South Wales, from South Australia and from Queensland. These insects are generally found under bark.

13. PTEROHELÆUS PASCOEI, Macl.

Trans. Ent. Soc. N. S. Wales, Vol. II. 1872, p. 282.

Broadly ovate, black, opaque. Head scarcely enlarged before the eyes, broadly rounded in front, finely canaliculate between the eyes, and with a semicircular line or suture extending across, and

to the front of, the head before the eyes. Thorax with a broad flat margin, and a lightly marked median line. Scutellum curvilinearly triangular. Elytra broadly margined—the margin of a reddish hue, slightly enlarged towards the middle, narrow at the apex, and marked off from the disk by a row of strong punctures—and densely punctate in numerous rows, the punctures small and sub-obliterate, the interstices also sub-obliterate, but a few showing a more costiform appearance than the others. Body beneath sub-nitid, sub-striolate. Antennæ, palpi, and tarsi of a reddish brown.

Long. 9 lines, lat. 6 lines.

Hab.—Gayndah, Peak Downs.

This species is quite of the *P. piceus* type.

14. PTEROHELÆUS ARCANUS, Pascoe.

Ann. Nat. Hist. Ser. 4, Vol. V, 1870, p. 98.

“Broadly ovate, brownish pitchy, slightly nitid; head impunctate; the clypeus, marked off by a fine line, broad and rounded anteriorly; prothorax very short, deeply and narrowly emarginate at the apex, the middle of the disk with two conspicuous foveæ; scutellum transversely triangular; elytra moderately convex, with broad foliaceous margins raised and thickened at their edges, each elytron with a glossy elevated ridge or line near the suture, terminating posteriorly in a number of small granules, a series of about six more or less elevated longitudinal lines, dotted with granules, on the rest of the elytron, one of these between the suture, which is also marked by a similar line, and the ridge, the remainder, of which the second and fourth are the most prominent, externally, the intervals of the lines minutely punctured in two rows; body beneath and legs glossy chestnut-brown” (Pascoe).

Length, 9 lines.

Hab.—Port Denison, Cleveland Bay; (“under bark”).

I have specimens from Cleveland Bay not exceeding 7 lines in length.

15. *PTEROHELÆUS PRUINOSUS*, Pascoe.

Journ. of Ent. II. p. 461

“Allied to *P. piceus*, Kirby, but broader, and the sides more parallel, covered with a fine uniform whitish exudation, and, under the lens, a scattered greyish squamosity; elytra striate-punctate, with only three very slightly raised lines on each; body beneath reddish-chestnut; antennæ and legs ferruginous” (Pascoe).

Length, 9 lines.

Hab.—North Australia.

I have never seen this species.

16. *PTEROHELÆUS COSTATUS*, n.sp.

Of the *P. Walkeri* form and sculpture, black, sub-nitid. Unlike *P. Walkeri*, the angles of the epicranium are quite flat, the labrum is more porrect, the base of the thorax is more bisinuate and the posterior angles more produced behind. The elytra are very broad and broadly margined, the costæ, seven in number, are distinct, regular and smooth, but not prominent; the intervals faintly impressed with two rows of small punctures, a single strong row of punctures on the outer side of the 7th costa. In all else the same as *P. Walkeri*.

Length, 10 lines, lat. 7 lines.

Hab.—Port Darwin.

Seemingly abundant.

17. *PTEROHELÆUS SINUATICOLLIS*, n. sp.

Broadly ovate, black, nitid. Head minutely punctate, rounded a little in front, the sides rounded and slightly turned up, eyes

nearly contiguous. Thorax very transversal, the disk convex, the margins broad, and a little recurved, the sides narrowing much to the apex, and slightly bisinuate, the anterior angles round but prominent, the base slightly bisinuate. Scutellum transversal, rounded behind. Elytra moderately convex with broad flat lateral margins, the disk with 17 rows of distinct punctures on each elytron, the interstices scarcely raised and nearly equal, the fourth and eighth very slightly more raised near the base, also a raised callus near the shoulder and an inequality about the middle close to the margin. The undersurface and legs are piceous brown and nitid, the prosternum is rather sharply carinated along the entire length, the spurs on the extremity of the anterior tibiæ are short, stout and pointed.

Length, 9 lines, lat. 6 lines.

Hab.—Cape York.

18. *PTEROHELÆUS DARWINIENSIS*, n. sp.

Broadly ovate, convex, black, sub-nitid. Head very minutely punctate, flat at the lateral angles, broadly rounded in front, eyes rather distant. Thorax transverse, smooth, narrowly and deeply emarginate in front, receiving the head up to the eyes, the lateral margins moderately broad and thickened on the edges, moderately bisinuate on the base. Elytra rather broader than the thorax, narrowly margined, each elytron faintly costate, the 2nd, 4th and 6th most conspicuous, the intervals with a double row of punctures. Undersurface and legs nitid, the prosternum flat and roundly produced behind, the spur on the anterior tibiæ rather long and acute, and slightly curved.

Long. 8 lines, lat. $5\frac{1}{2}$ lines.

Hab.—Port Darwin.

This species, though in form and sculpture resembling the insects of this section, shows also in the narrow margins of the elytra a decided affinity to those I place in the 2nd section.

19. *PTEROHELEUS INSULARIS*, De Brême.

Mon. Cossyph. 1, p. 30, pl. III., fig. 6.

Dull brownish-black, oval; head prominent, rounded, sub-convex, smooth. Thorax smooth, slightly convex, transverse, rounded on the sides, sinuate behind, the margin narrow, flat, the anterior angles not reaching the middle of the head, the posterior prominent and curved a little behind. Elytra oval, sinuate at the base, feebly narrowed towards the apex, slightly convex, with a number of slightly visible raised costæ, and between them two rows of punctures slightly impressed, the margins smooth, flat and as large as those of the thorax; suture smooth. Antennæ short, the last five joints large and flattened. Legs brown, nitid. Thighs dilated; undersurface and body of an opaque brown.

Long. $7\frac{1}{2}$ lines, lat. $4\frac{1}{2}$ lines.

Hab.—Raffle's Bay, N. Australia.

I have never seen this insect. Like the last described species, which it seems somewhat to resemble, it shows affinity to the 2nd section of the genus.

20. *PTEROHELEUS LATICOLLIS*, Pascoe.

Ann. Nat. Hist. Ser. 4, Vol. III., p. 285.

“Dark glossy-brown, the expanded margins of the elytra and prothorax considerably paler; head rather narrow behind the antennary ridges, concave between them; the eyes rather large and approximate; clypeus very convex, except at its anterior angles, its suture indistinct; prothorax short, broader than the elytra at its base, minutely punctured, the margins broad and only very slightly reflected, the basal foveæ strongly impressed; scutellum curvilinearly triangular; elytra gradually and rather rapidly narrowing from the base, seriate-punctate, the alternate intervals of the rows forming slightly elevated lines, the suture

strongly elevated from below the scutellar striola, the punctures rather small, the expanded margins, owing to a contraction of the sides of the disk, broadest at the middle, behind very distinctly reflected; body beneath and femora very glossy chestnut-brown; antennæ, tibiæ, tarsi, and epipleuræ of the elytra reddish ferruginous" (Pascoe).

Length, 10 lines.

Hab.—Melbourne.

It is with some doubt that I place this and the two following species in this section. I have never seen any of them. They are described by Pascoe, as being intermediate between *P. Walkeri* and *P. silphoides* in form, but no indication is given of their relative length or breadth. I think they must approach very nearly to some of the insects grouped in the next section.

21. PTEROHELÆUS HEPATICUS, Pascoe.

Ann. Nat. Hist. Ser. 4, Vol. III. p. 285.

"Dark brown (or sometimes light reddish brown), paler at the margins, less glossy than the last; head rather narrow behind the antennary ridges; the clypeus very convex, its suture above indistinct, but forming a well marked groove on each side; the eyes widely apart; prothorax not broader than the elytra at their base, much longer and narrower than in the last, the basal foveæ represented by a large shallow depression on each side; scutellum transversely triangular, the sides curvilinear; elytra gradually narrowing from the base, the sides of the disk not contracted, seriate-punctate, the intervals of the rows not raised, the punctures rather small, the expanded margins of nearly equal breadth, or only very gradually narrowing behind, the suture raised as in the last; body beneath and legs glossy chestnut-brown; antennæ glossy ferruginous" (Pascoe).

Length, $8\frac{1}{2}$ lines.

Hab.—Melbourne.

22. *PTEROHELÆUS DISPAR*, Pascoe.

Ann. Nat. Hist. Ser. 4, Vol. III. p. 286.

“Shortly elliptic in the male, oblong-obovate in the female, shining pitchy brown, the margins much paler; head rather narrow in front; clypeus convex, its suture rather indistinct; the eyes not remote; prothorax shorter proportionally in the male, the basal foveæ shallow, between them opposite to the scutellum an indistinct groove; scutellum triangular; elytra nearly parallel at the sides, and not broader than the prothorax in the female, broader in the middle in the male, finely seriate-punctate, the intervals without raised lines, the suture not elevated, the expanded margins of nearly equal breadth at the sides, and a little reflected at the edge; body beneath and femora dark chestnut-brown, shining; antennæ, tibiæ, and tarsi paler” (Pascoe).

Length (♂), 7 lines, (♀) 9 lines.

Hab.—Swan River.

SECTION II.

Form elongate or oblong-oval, the elytra more or less narrowly margined.

This section includes a large number of species differing considerably in sculpture. The identification of them will be simplified by classing them in sub-sections founded upon the sculpture of the elytra.

SUB-SECTION I.

Elytra seriate-punctate, the interstices more or less costate.

23. *PTEROHELÆUS ELONGATUS*, Macleay.

Trans. Ent. Soc. N. S. Wales, II. 1872, p. 282.

Oblong, oval, black, sub-opaque. Head transverse, punctate, widened in front of the eyes, rounded at the anterior angles, and

almost truncate in front, with a narrow recurved margin. Thorax with a broad lateral margin a little reflexed at the anterior angles, and only slightly bisinuate at the base. Scutellum triangular, punctate. Elytra nitid on the disk, nearly twice as long as the width, narrowly and equally margined, and marked on each elytron with eight costiform crenulated elevations alternating with smaller ones some of which are scarcely traceable, with the intervals coarsely and profoundly punctate. Under surface nitid, rugosely striolate. Antennæ, palpi, and tarsi piceous, the spur of anterior tibia short and obtuse.

Long. 10 lines, lat. $4\frac{1}{2}$ lines.

Hab.—Gayndah, Queensland.

24. PTEROHELÆUS REICHEI, Brême.

Mon. Cossyph. I. p. 35, pl. II. fig. 2.

Oblong, smooth, of a dull reddish-brown colour. Head prominent, finely punctate. Clypeus convex, the lateral angles prominent but rounded, the front convex. Thorax transverse, scarcely sinuate behind, convex, smooth, rounded on each side but very little sinuated at the anterior angles of the margins, those large, concave, with a very small and nitid border; the anterior angles about a third of the length of the head. Elytra convex laterally, depressed above, sub-parallel, rounded towards the apex, and a little pointed terminally; humeral regions scarcely prominent; on each elytron are numerous rather indistinctly raised costæ, becoming obliterated laterally and towards the apex; the intervals furnished with rows of profound punctures. The five last joints of the antennæ are round but a little flattened, velvety and of a testaceous-brown; undersurface of the body of a deep dull brown, the legs of a nitid brown.

Long. 10 lines, lat. 5 lines.

Hab.—New Holland.

I have never seen this species.

25. *PTEROHELÆUS HIRTUS*, n. sp.

Oblong, black, sub-nitid, the upper surface rather thickly clothed with erect soft hairs. Head rugosely punctate, clypeus broadly rounded, smooth and slightly reflexed, eyes about their diameter apart. Thorax transverse, thinly punctate, the anterior angles produced and angularly rounded, the margins broad, thinly punctate, narrowly raised on the edge, and of a piceous colour, the posterior angles acute and slightly pointed backwards, the base bisinuate, with a transverse canal on the central lobe, and a deep fovea at the middle of the emarginate part on each side of it; the disk is moderately convex with the median line rather faintly marked, and a shallow groove marking the line of separation between the disk and the margin on each side. Scutellum slightly transverse, triangular, rounded behind. Elytra of the width of, and three times the length of the thorax, parallel-sided for two-thirds of the length, and then narrowing to the apex, the disk very closely seriate-punctate, the punctures large, deep and crowded in 17 rows, every second interstice costate and smooth, the lateral margins narrow, uniform in width throughout, and smooth with reflected edge. Undersurface of body nitid, striolate-punctate and thinly clothed with decumbent hair of a yellowish colour; the prosternum terminates in a large flat process, rounded at the apex and fitting into the mesosternum, which is longer than usual in the genus. The legs are stout and setose, the tarsi very short, the three first joints very broad, bilobed and largely padded with masses of red hair.

Long. 10 lines, lat. $5\frac{1}{2}$ lines.

Hab.—New South Wales.

The form of the tarsi is the most remarkable thing in this, in many respects, curious insect. It might very properly be constituted into a genus.

26. *PTEROHELEUS ALTERNATUS*, Pascoe.

Ann. Nat. Hist. Ser. 4, Vol. III. p. 284.

“Rather narrowly oval, black, shining, somewhat depressed; head finely punctured; clypeus scarcely emarginate in front, its suture nearly obsolete; prothorax minutely punctured, a broad shallow fovea on each side at the base, no groove, the expanded margins not recurved; scutellum curvilinearly triangular; elytra flattish at the middle and base, finely seriate-punctate, the alternate intervals of the rows raised, the fourth, eighth, twelfth, and sixteenth much more so than the others, the expanded margins broad at the base, gradually narrower to the apex; body beneath and legs black, slightly glossy, tibiæ covered with short spinous hairs; antennæ short, not reaching to the end of the prothorax, black” (Pascoe).

Length, 8 lines

Hab.—Interior of Australia.

Unknown to me, apparently resembling the following species.

27. *PTEROHELEUS DEPRESSIUSCULUS*, n. sp.

Oblong-oval, black, sub-nitid, sub-depressed. Head finely punctate, dull, clypeus slightly emarginate, clypeal suture distinct at the sides, depressed in the middle, a longitudinal impression on the forehead, eyes distant. Thorax rather dull, minutely punctate, the anterior angles reaching to the eyes, the margins broad and slightly concave, the base slightly bisinuate and profoundly bifoveate, the disk a little convex with the median line visible throughout. Scutellum triangular, the sides slightly rounded. Elytra very slightly broader than the thorax, and rather more than twice the length, nitid, parallel-sided and rounded towards the apex, seriate-punctate; the punctures disposed in close not very regular rows, and small, except near the sides when they become larger; the interstices four, eight, twelve, and sixteen, marked

with broad, smooth, slightly elevated costæ; the margins are narrow and reflected, a little broader and square at the shoulder, the sculpture becomes obsolete at the apex. The under surface is much striolated, the legs are rather slender, the tarsi long, the prosternum presents a prominent rounded keel along its whole length.

Long. 10 lines, lat. $5\frac{1}{4}$ lines.

Hab.—South Australia.

28. *PTEROHELÆUS SQUALIDUS*, n. sp.

Of a very dull opaque-black, and densely covered with minute asperities all over. Form oblong, flat. Head flat, without clypeal suture, clypeus broadly emarginate, eyes well apart. Thorax transverse, semi-circularly emarginate in front, slightly bisinuate behind and with the lateral margins broad and a little reflected. Scutellum transverse and rounded behind. Elytra scarcely broader than the thorax, three times the length, marked with eight distinct costæ consisting of prominent almost contiguous granules, the intervals occupied by two very minute rows of very minute punctures mixed with very minute granules, margins narrow. Body beneath sub-nitid and finely punctured. Legs sub-nitid, the five last joints of the antennæ rather dilated.

Long. 7 lines, lat. $3\frac{1}{2}$ lines.

Hab.—Queensland (Mr. Masters' Collection).

This species has much the general appearance of an *Asida*; it perhaps should be placed in the following sub-section.

29. *PTEROHELÆUS CRENULATUS*, n. sp.

Oblong, brown, sub-opaque. Head densely punctate, a little emarginate in front, without clypeal suture, and a little recurved at the lateral angles, eyes very transverse. Thorax transverse, deeply emarginate in front, bisinuate behind, densely and minutely

rugosely punctate, the margins broad and flat. Elytra a little broader than the thorax and more than twice the length, with a number of close rows of deep square closely placed punctures, the interstices alternately larger and forming nodular costæ, the whole having a crenulate and chathrate appearance. Body beneath nitid.

Long. 5 lines, lat. $2\frac{1}{2}$ lines.

Hab.—Port Darwin.

SUB-SECTION II.

Elytra scriate-punctate, the interstices granular.

30. PTEROHELEUS GUERINII, Brême.

Mon. Cossyph. I. p. 36, pl. II. fig. 3.

Oblong, dull, blackish brown; head very prominent; clypeus a little emarginate, front convex. Thorax very transverse, sinuate behind and rounded on the sides, convex and moderately punctate; the margins broad, a little turned up, of a less dull brown, the anterior angles reaching beyond the middle of the head. Elytra parallel-sided for two-thirds of the length, rounded posteriorly, the disk convex and punctate in serrated rows, towards the apex the interstices are furnished with some very small granules; the suture is smooth, the margins very narrow, with a small border.

Long. $8\frac{1}{2}$ lines, lat. $6\frac{1}{4}$ lines.

Hab.—Australia.

I have not, to my knowledge, seen this species. In Australian collections the name has been affixed to another and very different insect.

31. PTEROHELEUS GRANULATUS, Germar.

Cilibe granulata, Germ. Linn. Ent. Stettin. Band III., p. 197.

Near *P. peltatus*, Erichs., but longer. Head punctulate, black, the antennæ and palpi piceous. Thorax very minutely and

dispersedly punctate, black, the lateral margins dilated, scarcely reflected, smooth, piceous and more or less diaphanous. Elytra finely but densely striate-punctate, the alternate interstices finely and remotely seriate-granulate, the granules more or less elevated, in the large specimens for the most part less distinct, black, the lateral margins somewhat piceous and diaphanous. Body beneath blackish-piceous, legs lighter.

Long. $6\frac{1}{2}$ -7 lines, lat. $3\frac{1}{2}$ and $3\frac{3}{4}$ lines.

Hab.—South Australia.

32. PTEROHELEUS TRISTIS, Germar.

Cilibe tristis, Germ. Linn. Ent. Stettin. Band 3, p. 197.

Entirely black, subnitid, the tarsi somewhat piceous. Head densely punctate, thorax densely and very finely punctate, the punctures rather large and scattered, the sides broadly flattened, sub-elevated and finely transversely striolate. Elytra profoundly and densely seriate-punctate, the marginal stria almost foveate, the interstices towards the apex and sides remotely and finely granulate, the fifth interstices somewhat elevated.

Long. $8\frac{1}{2}$ lines, lat. 5 lines.

Hab.—South Australia.

33. PTEROHELEUS BULLATUS, Pascoe.

Journ. of Ent. Vol. II. p. 462.

"Narrowly oblong, reddish brown or dark brown, slightly shining; head finely punctured; prothorax with very minute punctures, the emargination at the apex very shallow; elytra rather finely lineate-punctate, the alternate lines slightly elevated (about nine on each elytron) and garnished with small glossy pustular or bubble-like granules placed at irregular intervals on those lines; body beneath dark chestnut-brown, or paler; legs also varying from reddish to brown, and shining" (Pascoe).

Long. 8 lines, lat. $3\frac{1}{4}$ lines.

Hab.—New South Wales, South Australia, Queensland.

34. *PTEROHELÆUS GRANULIGER*, n. sp.

Oblong-ovate, black, sub-nitid, sub-depressed. Head finely punctate, clypeus broad, slightly convex, clypeal suture a little depressed and not marked in the middle, eyes rather distant. Thorax finely punctate, rather opaque, the anterior angles advanced, reaching to the front of the eyes, margins broad and slightly rugose, the base bisinuate, its central lobe slightly reflected on the margin. Elytra of the width of the thorax, and three times the length, parallel-sided to near the apex, seriate-punctate in 17 rows, the punctures deep and of moderate size, the interstices a little raised (the fourth and eighth very slightly more than the others) and all rather closely studded with bright bead-like granules; the margins are very narrow, concave, thinly punctate, and a little reflected at the humeral angles. Body beneath nitid and striolate; legs nitid and rather long and slight; prosternum broad and four-grooved between the legs, terminating behind in a flat triangular extension.

Long. $10\frac{1}{2}$ lines, lat. $5\frac{1}{2}$ lines.

Hab.—Murrumbidgee

35. *PTEROHELÆUS SUBGEMINATUS*, n. sp.

Oblong-oval, black, sub-opaque. Head very minutely punctate, plain, without clypeal suture. Clypeus a little swollen in front, that and the labrum slightly emarginate, eyes distant. Thorax transverse, very minutely but not densely punctate, the anterior angles not produced, the apex slightly emarginate, the lateral margins rather broad, concave and of a reddish colour, the base bisinuate. Elytra scarcely broader than the thorax, and three times the length, with about 17 crowded rows of minute punctures, disposed somewhat in pairs, the interstices perfectly flat and furnished near the apex with some minute granules, the margins very narrow and recurved. Body beneath and legs reddish, nitid,

finely striolate, the thighs are short and compressed, the tibiæ and tarsi long and slender. The last five joints of the antennæ broad and compressed.

Long. 4 lines, lat. 2 lines.

Hab.—Port Augusta, S. Australia (Mr. Masters' Collection).

36. PTEROHELÆUS NITIDIUSCULUS, n. sp.

Oblong-oval, black, nitid, of depressed form. Head very minutely punctate, clypeus slightly emarginate and thickened and convex in front, eyes distant. Thorax transverse, deeply emarginate in front, the anterior angles reaching as far as the front of the eyes, the margins broad, concave, turned up on the edge, and of a reddish hue, the base lightly bisinuate, the disk very lightly and shallowly foveate at the base and extremely minutely punctate. Elytra scarcely broader than the thorax, and nearly three times the length, parallel-sided to near the apex, very nitid, closely and densely seriate-punctate (17 or more rows of minute punctures), the interstices not raised, and furnished with glossy granules, sparingly towards the base, more thickly towards the apex, the margins are very narrow and concave. The body beneath and legs are nitid and piceous, the abdominal segments are very minutely punctate and striolate, the thighs are longer and less dilated than in the last species, the prosternum is obtusely pointed behind.

Long. $5\frac{1}{2}$ lines, lat. $2\frac{3}{4}$ lines.

Hab.—South Australia.

Both this and the preceding species, resemble *P. peltatus* of Erichson very much in form and general appearance.

SUB-SECTION III.

Elytra seriate-punctate, the interstices flat or slightly raised and narrow.

37. PTEROHELÆUS SILPHOIDES, Brême.

Cilibe silphoides, Brême, Mon. Cossyph. I. p. 42, pl. III. fig. 3. not *C. silphoides*, Latr. and Boisd.

Brown, smooth, ovate; antennæ rather long, brown, the last joints flattened, the terminal one oval; head punctate, narrowed at the anterior angles, labrum porrect, narrow, clypeus convex, anterior angles of the epicranium rounded but prominent and slightly raised. Thorax scarcely visibly punctate, opaque, sinuate behind, margins broad, flat, the borders folded upwards, the anterior angles reaching the middle of the head, the posterior curved backwards; an oblique "sillon" at base between the disk and the margin. Elytra oval, opaque, very feebly dilated towards the middle, and pointed posteriorly, sinuate at the base, where they are less convex than towards the apex, they have numerous series of large impressed punctures.

Long. $7\frac{1}{2}$ lines, lat. $4\frac{1}{2}$ lines.

Hab.—Australia.

I believe I have never seen this species, it is clearly not the *C. silphoides* of Boisdu, which may be a *Cilibe*; De Brême placed this insect in the genus *Cilibe*, but Pascoe (1) asserts positively that it is winged.

38. PTEROHELEUS SERVUS, Pascoe.

Journ. of Ent. Vol. II. p. 462.

"Oblong, dull brown, narrower than *C. silphoides*, De Brême with the prothorax a little wider than the elytra, its apex more deeply and squarely emarginate, not semi-circular, and the narrowly impressed line in the middle more strongly marked; elytra striato-punctate, the striæ approximate; body beneath and legs glossy chestnut-brown; sides of the abdominal segments wrinkled" (Pascoe).

Length, 7 lines

Hab.—Victoria.

39. PTEROHELEUS MEMNONIUS, Pascoe.

Journ. of Ent. Vol. II. p. 462.

"Oblong, glabrous, black, slightly nitid; head finely punctured, narrowed; the eyes large and sub-approximate, the distance

(1) Journ. Ent. Vol. II. p. 462, Note.

between them in front being rather more than the length of their shortest diameter; prothorax finely punctured, its margins minutely waved; elytra closely lineate-punctate, the punctures well-marked the margins very narrow; body beneath and legs black, shining; tarsi and lip with ferruginous hairs" (Pascoe).

Length, 11 lines.

Hab.—South Australia.

40. PTEROHELEUS PUSILLUS, MacL.

Proc. Linn. Soc. N. S. Wales, Ser. 2, Vol. II. p. 307.

Hab.—Barron River, N. Queensland.

41. PTEROHELEUS NITIDISSIMUS, Pascoe.

Ann. Nat. Hist. Ser. 4, Vol. III. 1869, p. 282; *P. striatopunctatus*, Brême, Mon. Cossyph. I. p. 31, pl. II. fig. 6.

"Oval, moderately convex, very glossy deep black; head finely and closely punctured, clypeal groove broad and shallow; prothorax very minutely and rather closely punctured, rounded at the sides, the edge of the expanded margin anteriorly recurved, an irregular well-marked groove at the base interrupted in the middle; scutellum curvilinearly triangular; elytra a little contracted behind the shoulders, very finely seriate-punctate, the punctures less regularly arranged near the suture; body beneath and legs very glossy, black, propectus opaque, granulate; antennæ reaching to the base of the prothorax, third joint half as long again as the fourth" (Pascoe).

Length, 5-5½ lines.

Hab.—South Australia.

This is a common South Australian species. Mr. Pascoe changed De Brême's name, as Boisduval had given it previously to what is evidently a very different species.

42. *PTEROHELÆUS VICARIUS*, Pascoe.

Ann. Nat. Hist. Ser. 4, Vol. III. 1869, p. 283.

“Rather broadly oval, brownish-black, shining; head thickly and roughly punctured, clypeal groove well defined, narrowly and sharply limited, the transverse portion above curved downwards; prothorax minutely but not very closely punctured, rounded at the sides, the expanded margins not recurved, the irregular basal groove on each side nearly obsolete; scutellum broadly triangular, its apex rounded; elytra a little contracted behind the shoulders, finely, but not minutely, seriate-punctate, the punctures less regularly arranged near the suture and base; body beneath and legs glossy brownish-black, the propectus opaque, granulate; antennæ short, third joint nearly twice as long as the fourth” (Pascoe).

Length, 6-7 lines.

Hab.—New South Wales, Victoria, and Queensland.

43. *PTEROHELÆUS LITIGIOSUS*, Pascoe.

Ann. Nat. Hist. 4 Ser. Vol. III. p. 283.

“Rather narrowly oval, rusty-brown, shining; head finely punctured, a little concave in front; clypeus broadly emarginate anteriorly, separated from the front by a narrow indistinct line; prothorax very minutely punctured, a short longitudinal groove near the apex, none at the base, the expanded margins not recurved; scutellum transversely triangular; elytra callous at the base, rather finely seriate-punctate, the intervals of the rows slightly raised, the fourth and eighth intervals rather more so than the others, the expanded margins narrow; body beneath, legs, antennæ, and margins of the prothorax and elytra reddish-ferruginous” (Pascoe).

Length, 7 lines.

Hab.—Sydney,

44. *PTEROHELÆUS ASELLUS*, Pascoe.

Ann. Nat. Hist. Ser. 4, Vol. V. 1870, p. 99.

"Oval, the outline equally rounded and rather obtuse at both extremities, the sides a little incurved, moderately convex, blackish-brown, scarcely shining; head and prothorax covered with exceedingly minute punctures, the margins of the latter gradually passing into the disk; scutellum transversely and curvilinearly triangular; elytra linearly punctured, the punctures rather small, the fifth and eighth intervals between the lines a little broader than the rest, and the margins concolorous, narrow, of equal breadth throughout, and agreeing with those of the prothorax; body beneath and legs glossy-brown; antennæ short, the last joint nearly circular" (Pascoe).

Length, $4\frac{1}{2}$ -5 lines.

Hab.—Queensland.

45. *PTEROHELÆUS AGONUS*, Pascoe.

Journ. of Ent. Vol. II. p. 461.

"Ovate, blackish-brown, slightly nitid; head very finely punctured; antennæ and palpi ferruginous; prothorax nearly impunctate, very short, broadly emarginate at the apex, the posterior angles slightly produced; scutellum sub-triangular; elytra lineate-punctate, the punctures small, the lines rather widely apart; body beneath and legs black, shining; tarsi ferruginous" (Pascoe).

Length, 5-6 lines.

Hab.—Interior of Australia.

46. *PTEROHELÆUS PARALLELUS*, Brême.

Mon. Cossyph. I. p. 33, pl. II. fig. 7.

Entirely of a deep, nitid, blackish-brown colour; head rounded; clypeus convex; epicranium a little turned up laterally; labrum

prominent. Thorax moderately transverse, not sinuate behind, finely punctate, convex, and rounded laterally; margins broad and wrinkled, punctate and of a less deep brown; the anterior angles extending a little beyond the half of the head. Elytra convex, parallel, somewhat feebly compressed at the humeral region (which is also raised into a boss), rounded behind, strongly punctate (these impressed punctures are disposed in very close lines); the margins very narrow, but quite visible and turned up. Antennæ fulvous, velvety; legs and undersurface of body; deep shiny-brown.

Long. 7 lines, lat. $3\frac{1}{2}$ lines.

Hab.—Swan River.

47. PTEROHELÆUS OVULUM, Haag-Rut.

Journ. Mus. Godef. Heft 14, p. 115, taf. 7, fig. 1—Verh. Ver. für naturw. Unterh. in Hamburg, III. p. 97.

Regularly oval, blackish brown, opaque; head dispersedly punctate; thorax scarcely punctate, three times broader than long, much narrowed in front; elytra broader than the thorax, little convex, the margins flattened out, with the suture and eight costæ slightly elevated, and the intervals regularly punctate. Body beneath rather nitid, sparingly punctulate and striolate.

Long. $6\frac{1}{2}$ -7 lines, lat. $4\frac{1}{2}$ lines.

Hab.—Gayndah, Queensland.

This species is found over a great part of North Queensland. It is not unlikely that there are more than one species of the type

48. PTEROHELÆUS CONFUSUS, Macleay.

Trans. Ent. Soc. N. S. Wales, Vol. II., p. 283.

Ovate, black, sub-nitid. Head a little widened and elevated in front of the eyes, and scarcely emarginate in front, with the central canaliculation minute, the semicircular clypeal suture well marked, and a transverse raised line near the apex of the clypeus.

Thorax sub-convex, with a broad reddish reflexed margin, and the median line scarcely traceable. Scutellum transversely and curvilinearly triangular. Elytra sub-convex, the lateral margins reddish, nearly as broad as those of the thorax at the humeral angles, and becoming narrower to the apex, with the disk covered with numerous rows of small punctures, becoming obliterated towards the apex, the alternate interstices faintly costate and quite obliterated behind. Under side of body nitid, striolate. Legs piceous, antennæ and tarsi reddish.

Long. 7 lines, lat. 4 lines.

Hab.—Gayndah.

49. *PTEROHELÆUS PUNCTIPENNIS*. n. sp.

Ovate, moderately convex, black, nitid. Head punctate, immersed in the thorax up to the anterior angles, eyes moderately distant. Thorax more than twice broader than the length, minutely punctate, very deeply emarginate in front, slightly bisinuate behind, with the margins very broad and finely rugosely punctate. Elytra as wide as the thorax at the base, rounded and a little narrowed behind, the margins broad, flattened, smooth at the shoulders, becoming rapidly narrower to the apex, the disk covered closely with sharp, deep punctures, disposed in very close rows. Body beneath piceous and striolate; legs piceous red, short, thighs dilated.

Long. 4 lines, lat. 2 lines.

Hab.—Queensland (Mr. Masters' collection).

50. *PTEROHELÆUS OPATROIDES*, n. sp.

Very small, oblong, depressed, piceous-brown, very opaque. Head minutely roughly punctate. Thorax transverse, deeply emarginate in front, lightly bisinuate behind, densely and minutely rugose-punctate, with the margins broad and a little reflected. Elytra of the width of the base of the thorax and nearly three times the

length, with narrow reflected lateral margins, the disk densely punctate in numerous close striae, the punctures deep, close and somewhat square, the interstices a little raised and very narrow. Body beneath piceous, nitid. Sterna coarsely punctate.

Length, 3 lines, lat. 2 lines.

Hab.—Clyde River.

51. PTEROHELÆUS PELTATUS, Erichs.

Cilibe peltata, Erichs. Archiv für Naturg. Jahrg. VIII, Bd. I, p. 175.

Oblong-oval, sub-depressed, piceous, sub-opaque. Head impunctate, clypeus dilated, truncate at the apex. Thorax lightly bisinuate at the base, twice as broad at the base as the length, the sides rounded, the apex deeply emarginate, impunctate, slightly convex on the disk, the margins broadly flattened, obscurely red, and reflected on the edge. Elytra slightly convex, densely seriate-punctate with two of the interstices slightly raised, the margins broad, smooth, and obscurely reddish.

Length, 5-5½ lines.

Hab.—Tasmania, Victoria.

52. PTEROHELÆUS CEREUS, n. sp.

Broadly ovate, black, nitid, of a waxy gloss. Head rugosely punctate, the clypeus slightly reflected in front, the lateral angles more so. Thorax very transverse, much narrowed and emarginate in front, bisinuate behind, minutely punctate on the disk and margins, the disk rather convex, with the median line showing on the anterior half, the margins broad and reflected in front, broader and flat towards the posterior angles. Elytra rather broader than the thorax, disk rather convex, and covered with tolerably regular close rows of smallish punctures, the margins tolerably wide, widest a little behind the shoulders, then narrowing to the apex, and transversely rugose.

Long. 6 lines, lat. 3½ lines.

Hab.—West Australia.

53. *PTEROHELÆUS STRIATO-PUNCTATUS*, Boisd.

Cilibe striato-punctata, Boisd. Faun. de l'Océanie; Erichs. p. 266.

Elongate, oval, black. Thorax smooth, elytra elongate and covered with medium-sized punctures arranged in striæ.

Hab.—Kangaroo Island.

I have not to my knowledge seen this insect, and M. Boisduval's description, which I have translated in full, is of very little use. I place it here because I see that Mr. Pascoe recognises it as a species.

54. *PTEROHELÆUS PELTOIDES*, n. sp.

? *P. peltatus*, De Brême, Mon. Cossyph. I. p. 34, pl. II. fig. 4.

Oblong-oval, black, opaque. Head minutely punctate, clypeus a little convex or tumid, broadly truncate or very slightly emarginate; the lateral angles of the head rounded, prominent, and very slightly reflected, the eyes distant. Thorax transverse, scarcely visibly punctured, the anterior angles advanced and much rounded, the base very slightly bisinuate, the lateral margins broad, smooth, flat, and of a dull reddish black colour. Elytra not broader than the thorax at the base, parallel-sided to near the apex, excepting a slight emargination a little behind the shoulder, the disk covered with small well-marked punctures in 17 complete rows,—the interstices not visibly elevated, and a short sutural stria, the lateral margins rather broad, smooth, of a reddish hue, and narrowing to the apex. Body beneath and legs nitid, the prosternum granulate.

Long. 7 lines, lat. 4 lines.

Hab.—New South Wales, Victoria.

A very common species and of wide range. I verily believe it to be *P. peltatus* of De Brême, a species differing entirely from *P. peltatus* of Boisduval. Whether I am right in this supposition or not, the name of *peltatus* can only be used for Erichson's species which has undoubtedly priority.

SUB-SECTION IV.

Elytra irregularly punctate.

55. PTEROHELEUS KOLLARI, Brême.

Mon. Cossyph. Vol. I. p. 32, pl. VII. fig. 3.

Nitid brown, smooth, very convex; head broad, prominent, strongly punctate; thorax notably transverse, sinuate behind, rounded laterally and very finely punctate, the margins narrow, flat and smooth, the anterior angles scarcely reaching half of the head, the posterior angles prominent and acute. Elytra sinuate at their base, parallel-sided for two-thirds of their length, rounded towards the apex, and a little pointed; the disk nitid, very convex and finely and irregularly punctate, the margins scarcely noticeable. Body beneath nitid brownish-black.

Long. 7 lines, lat. $4\frac{1}{2}$ lines

Hab.—Swan River.

56. PTEROHELEUS GLABER, n. sp.

Ovate, black, nitid, convex. Head rugosely punctate, deeply immersed in the thorax, the lateral angles raised. Thorax twice as broad as long, very finely punctate, the margins rather broad, minutely rugosely-punctate, and much reflected, especially at the anterior angles, the posterior angles pointed backwards. Scutellum curvilinearly triangular, with a few small punctures. Elytra of the width of the thorax and three times the length, convex, parallel-sided, covered with minute rather thinly distributed punctures scarcely showing a trace of order or striation, the margins narrow, concave, with a reflected edge, a slight compression on the side of the disk behind the shoulders, not showing on the margin. Undersurface nitid and slightly striolate, prosternum granulose, carinate from the apex.

Long. 7 lines, lat $3\frac{1}{2}$ lines.

Hab.—Darling River.

57. *PTEROHELÆUS MINIMUS*, Pascoe.

Ann. Nat. Hist. ser. 4, Vol. III., p. 284.

“Oblong-oval, pitchy brown, sub-nitid, the margins of the prothorax and the elytra, and the anterior part of the head, paler, yellowish-brown; head densely punctured, the clypeal groove very indistinct; prothorax rather short, covered with fine oblong punctures, the intervals very narrow, and in certain lights causing the surface to assume a delicately corrugated appearance, the expended margins narrow and slightly reflected; scutellum transversely triangular; elytra minutely and irregularly punctured, with scattered minute tubercles, especially near the suture, the expanded margins very narrow, body beneath and legs glossy reddish testaceous; antennæ inclining to testaceous” (Pascoe).

Length, $3\frac{1}{2}$ lines.

Hab.—Cooper’s Creek.

58. *PTEROHELÆUS OBLITERATUS*, n. sp.

Oblong-oval, black, nitid, sub-convex. Head rugosely punctate, particularly on the depression of the clypeal suture, the lateral angles reflected, the eyes transverse and rather approximate. Thorax very thinly and minutely punctate on the disk, the margins broad, flat, and very minutely punctate and striolate, emarginate in front and bisinuate behind. Elytra of the breadth of the thorax at the base, and three times the length, moderately densely covered with distinct deep punctures irregularly placed, or only partially regular, becoming gradually smaller towards and finally quite effaced at the apex, the lateral margins rather narrow and smooth.

Long. 7 lines, lat. 4 lines.

Hab.—Peak Downs.

59. *PTEROHELEUS DISPERSUS*, n. sp.

Oblong-oval, black, sub-opaque, rather depressed. Head roughly punctate, the clypeal suture distinct at the sides, the apex truncate. Thorax transverse, very thinly and minutely punctate; very broadly margined, the margins reflected in front, and bisinuate behind, with two deep foveæ in the centre of the disk. Elytra not broader than the thorax, irregularly and thinly punctate, the punctures rather small and disappearing towards the apex, the lateral margins narrow and smooth, a shallow fovea on the inner side of each humeral callus. Body beneath very nitid and finely striolate.

Long. $5\frac{1}{2}$ lines, lat. $3\frac{1}{2}$ lines.

Hab.—Lower Murrumbidgee.

60. *PTEROHELEUS CONVEXIUSCULUS*, n. sp.

Ovate, black, sub-nitid, convex. Head rugosely punctate, the clypeal suture well marked, the apex broadly and very slightly emarginate, the lateral angles a little prominent and reflected. Thorax scarcely punctate, the median line rather faintly marked, the margins broad, flat and faintly striolate. Elytra of the width of the thorax; parallel-sided and convex, punctured irregularly as in the preceding species but more densely, with two large foveæ at the base. Body beneath nitid, the prosternum carinate from the apex.

Long. 7 lines, lat. 4 lines.

Hab.—Murrumbidgee.

61. *PTEROHELEUS THYMALOIDES*, Pascoe.

Saragus thymaloides, Pascoe, MS.

Ovate, reddish-brown, sub-nitid, very convex. Head very minutely punctate, a small fovea in the middle of the vertex, the clypeus truncate with rounded angles and a slightly recurved

border. Thorax narrow in front, broad and nearly truncate behind, very minutely punctate, the margins expanded, not reflexed. Elytra broader than the thorax and not much longer than broad, convex, faintly and confusedly striate, and densely rugose-punctate all over, the margins narrow, almost disappearing towards the apex. The under surface and legs brown, nitid and striolate.

Long. 3 lines, lat. 2 lines.

Hab.—South Australia.

I received the name of this insect from Mr. Pascoe, years ago, but I cannot find that he ever described it.

I have now, I think, recapitulated all the known species of *Pterohelæus* with the exception of *P. planus* of Blissington* of which species I have never seen a description. I have also added largely to the number of new species, but I believe there are many yet remaining to be described.

The remaining genera of the Helæides, *Helæus*, *Sympetes* and *Saragus* will form the subject of another Paper.

* Hor. Soc. Ent. Ross. 1861, p. 90, t. 4, fig. 1.